T.C. NUMBER: 713 (Approved 11/7/39)

(Same as Model D17R, T.C. 638, except engine installation)

Engine and Engine Accessories - Fuel and Oil Systems 101. Engine ring cowling (NACA type)

102. Carburetor air heater (muff type)

103. Starter (Eclipse E80)

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Engine
                                    Wright R-760E-2
Puel
                                    80 min. octane aviation gasoline
Engine limits
                                    Maximum, except take-off, 2200 rpm (320 hp)
                                    Take-off (one minute), 2400 rpm (350 hp)
Level flight or climb 186 mph; glide
Airspeed limits
                                    or dive 223 mph; flaps extended 115 mph Maximum permissible diameter 106 in.
   (T.I.A.S.)
Propellers limits
                                       (For clearance)
                                   (+16.4) (6.7 percent MAC) to (+25.5)
(22.6 percent MAC)
Leading edge of lower wing
C.G. range
Datum
                                    57.2 inches (L.E. of MAC at (+12.6)
Airplane is level when stagger (horizontal distance
MAC
Leveling means
                                       between wing trailing edges near fuselage) is
                                       25.6 in.
Maximum weight
                                    4250 lbs.
No. seats
                                    5 (two at (+18) and three at (+62))
Maximum baggage
                                    125 lbs. maximum (+88) (See Item 216)
                                    98 gallons (one fuselage tank, 29 gallons (+32),
two lower wing tanks, 23 gallons each, (+24),
one upper right wing tank, 23 gallons (+47)).
Fuel capacity
                                    (See Item 205)
6.5 gallons (-14)
Oil capacity
Control surface
                                    Flevators
                                                           36 degrees up
                                                                                   26 degrees down
  movements
                                    Elevator tabs
                                                           14.5 degrees up 14.5 degrees down
                                    Ailerons
                                                           33 degrees up
                                                                                  25 degrees down
                                                           28 degrees right 28 degrees left
20 degrees right 20 degrees left
                                    Rudder
                                    Rudder tab
                                    Flaps
                                                           45 degrees down
                                   D17A-305 and up and all AAF Nos.
Items 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, and 114
Serial Nos. eligible
Required equipment
Specifications Pertinent to All Models:
Certification basis Type Certificate No. 713 (CAR 4a)
Production basis None (See NOTE A)
                                    Eligible for export as follows, subject to provisions of MOP 2-4:
Export eligibility
                                       (a) Canada
                                             - Landplane - eligible
                                             - Skiplane - not eligible
                                             However, structure complies with Canadian
                                             requirements for ski gear when item 310 is installed. Maximum pedestal height 17 in.
                                             Tread is same as landplane.
                                       (b) All other countries except New Zealand
EQUIPMENT: A plus (+) or minus (-) sign preceding the weight of an optional item indicates the net weight change between that item and the equivalent
     required item.
Propellers and Propeller Accessories
      114. Propeller - Hamilton Standard hub 2B20,
              blades 6135A-12 or 6135A-13. Diameter
              8 1/8 maximum, 7 9-7/8 minimum.
              Low pitch setting 11.7 degrees.
                                                                      108 lbs.
                                                                                           (-66)
     218. Constant speed governor (Hamilton
             Standard type 1A1-A5)
                                                                         5 lbs.
                                                                                           (-61)
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39 lbs.

20 lbs.

4 1bs.

(-48)

(-41)

(-33)

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109. Oil radiator (Drawing D17S8950)
                                                                    8 lbs.
                                                                                     (-39)
            Wobble pump (Type D-2)
Engine driven fuel pump (Pesco 400
series or Romec RD-3080)
                                                                    4 1bs.
                                                                                     (+12)
     110.
                                                                                     (-34)
                                                                    5 1bs.
            Oil tanks 8 or 9.5 gallons
Auxiliary fuel tanks
(a) One 23 gallon tank, upper left wing
(b) One 49 gallon tank, fuselage
(May replace lower wing tanks.)
                                                                                     (-14)
     204.
                                                                    5 lbs.
     205.
                                                                  20 lbs.
                                                                                     (+47)
                                                                   25 lbs.
                                                                                     (+52)
                                                                                     (-47)
     207.
                                                                   15 lbs.
            Ignition shielding (Breeze)
                                                                    1 lb.
                                                                                     (-27)
            Special oil drain
     219.
            Fuel analyzer (Breeze or Cambridge)
                                                                                     (-8)
     220-
Landing Gear and Floats
            7.50-10 wheels (Goodyear 10 HBM or
Hayes 750 Series) with 7.50-10 6-ply
             tires (wheels must be placarded for
             these tires)
                                                                   75 lbs.
                                                                                     (+5)
                                                                                     (+205)
                                                                    5 lbs.
     107.
             10x3 tail wheel
            Dual brakes (copilot)
                                                                   +2 lbs.
                                                                                     (-8)
            Hand operated parking brake
Emergency wood landing skids
                                                                                     (-4)
     306.
                                                                    2 1bs.
     307.
             (Drawing E170140)
                                                                   16 1bs.
                                                                                     (+221
     308.
             Puncture proof tubes
                                                                   +8 1bs.
                                                                                     (+5)
             Skiplane landing gear (Drawing
     310.
                                                                   +3 1bs.
                                                                                     (+20)
             D17820 and D17840)
     312.
           10 in. smooth contour tail wheel
                                                                  No weight change
             assembly with 6-ply tire
Electrical Equipment
            Generator - 15 amp (Eclipse G-2)
Battery (Exide 6TS-13-1) (on firewall)
Landing gear motor (Dumore D5, 40 amp
                                                                   15 lbs.
                                                                                     (-33)
     104.
                                                                                     (+-21)
                                                                   36 lbs.
     105-
     112.
                                                                    9 1bs.
                                                                                     (+7)
             fuse required)
            Flap motor (Dumore X special 4253, 30 amp fuse required)
     113.
                                                                    5 lbs.
                                                                                     (+45)
     201-
             Generator
             (a) 25 amp (Eclipse D)
(b) 50 amp (Eclipse E)
                                                                   20 lbs.
                                                                                      (-33)
                                                                   25 lbs.
                                                                                      (-33)
            Landing lights
             (a) One or two (Hall A-6)
                                                                  3.5 lbs. each (+35)
             (b) One or two (Grimes ST-250)
(c) One or two (Grimes ST-1220)
                                                                  3.5 lbs. each (+21)
                                                                    4 1bs. each (+21)
3 1bs. (-2)
                                                                                     (-2) or (-
     311.
            Cannon plug (for electric starter)
Interior Equipment
     108. Swing-over control column (See Item 301) 11 lbs.
                                                                    3 lbs.
             Cabin heater (Muff type)
     202.
             fire extinguisher
(a) (Lux -2 lbs.)
(b) (Lux -5 lbs.)
(c) (Pyrene No. 5C)
      203-
                                                                    12 lbs.
                                                                    17 lbs.
                                                                                      (-13)
                                                                   12 lbs.
                                                                                      (-10)
                                                                    10 lbs.
                                                                                      (-10)
              (d)
                    (ACE)
                    (Lux -5 lbs.) (Drawing I-170555)
                                                                   21 lbs.
                                                                                      (+50)
              (e)
             Parachute flares
      206.
              (a) Three or four 1-1/2 minute
                    (International MX-1)
                                                                  6 lbs. each (+80) or (+108
                                                                 18 lbs. each (+105)
                   One or two 3 minute (Wiley A-8)
             Golf bag compartment (Drawing I-17006)
      208.
              (Maximum capacity 70 lbs., included in
             baggage allowance)
                                                                     9 1bs.
                                                                                      (+100)
      209.
             Parachutes or parachute type chairs
      211.
             Vacuum equipment
              (a) Pump (Pesco 194 or Romec RD-2112)
(b) Venturi tubes
                                                                                      (-34)
                                                                     5 1bs.
                                                                     1 lb.
             Package drop (under baggage compartment)
Control column - "T" type
                                                                   +8 1bs.
                                                                                      (+84)
      222.
      301.
             (See Item 108)
Polding back seat (may replace standard front seats)
                                                                  No weight change
      309.
                                                                    16 lbs.
                                                                     4 1bs.
                                                                                      (+77)
      313. Utility case
 Miscellaneous (Not listed above)
      212. Extra cabin door on right side
                                                                   +5 1bs.
                                                                                      (+42)
             Fuselage alterations for special-
              purpose equipment
              (a) Photographic version (Item 214)
                    Includes front and rear floor
                    windows, camera and viewfinder
                    wells, and change in location of
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rudder cables (Drawings D17015 and

	(b) Ambulance version (Item 215) Includes rear seat center support		1001		(133)	
	and litter floor attachments (Drawings I-17073 and I-17077)	+2	lbs.		(+53)	
	Includes rear seat center support and metal lined baggage compartment					
214.	and right rear of cabin (Drawings I-170812 and I-170813) Photographic version (See Item 213(a))	+ 15	lbs.		(+73)	
	<ul><li>(a) Camera and viewfinder</li><li>(b) Photographer's stool</li><li>(These items (a and b) may be installed</li></ul>		lbs. lbs.	max.	(+51) (+65)	
	after fuselage alterations (Item 213(a)) have been made, and standard rear seat,					
	31 lbs. (+67), camera and viewfinder cover plates, 3 lbs. (+51), have been removed)					
215.	<ul><li>(c) Oxygen tank installation</li><li>Ambulance version (See Item 213(b))</li><li>(a) Special right or left half rear</li></ul>	150	lbs.	max.	(+73)	
	seat (Drawing I-17073) (May replace standard rear seat 31 lbs.					
	<pre>(+67), if fuselage alterations (Item 213(b)) have been made.) (b) First aid box installation</pre>		lbs.	each	(+67) (+48)	
	(c) Ambulance litter (May be installed after fuselage alteration (213(b)) and removal of right half rear seat					
216.	<pre>(a) and copilot's seat, 16 lbs. (+21)</pre>	14	lbs.		(+42)	
210.	Mailplane version (See Item 213(c)) (a) Same as Item 215(a) except Drawing I-170812					
	<ul><li>(b) Removable front and inner sides of forward mail compartment (see c)</li><li>(c) Mail compartments and capacities:</li></ul>	10	lbs.		(+52)	
221.	1. Front 2. Rear	150	lbs.		(+88)	
302. 304.	Fallast at tail post (Drawing I-17007) Metal cover for wing fuel tanks Quick door release	3 lb			(+224) +24) or (+25)	(+47)

+13 lbs.

(+33)

NOTE A. Prior to original certification, each aircraft manufactured prior to August 7, 1945, must satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before covering, metal priming or final finish is applied.
- (b) A final inspection of the completed aircraft(c) A check of the flight characteristics

D170160)

- NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).
- NOTE 2. Fuel restriction placard must state: "Use fuselage tank(s) for take-off and landing. Fill fuselage tank(s) before filling wing tanks. Use wing tanks before using fuselage tank(s)." When upper wing fuel tanks are installed, add, "Fill lower wing tanks before filling upper wing tanks before using lower wing tanks."